

**Amendments to Drawings:**

The attached one sheet of drawings includes changes to Figure 4. This sheet replaces the original sheet including Figure 4.

In Figure 4, the variable  $m_p$  to the right of block 425 and in block 430 has been changed to  $m_e$ . Furthermore, in block 440,  $|m_d - m_c|$  has been changed to  $|m_d - m_e|^2$ .

**REMARKS/ARGUMENTS**

After the foregoing Amendment, claims 1-15 are currently pending in this application. The claims have been amended to more distinctly claim subject matter which the Applicants regard as the invention. The Applicants submit that no new matter has been introduced into the application by these amendments.

A Substitute Specification is enclosed herein to replace the original specification included with the application when originally filed. Changes in the Substitute Specification have been made to increase the lettering height and correct a few minor errors in some of the Equations therein, to define all of the terms used in the Equations, and to change the phrase "demodulator outputs" to "demodulator output symbols." Also enclosed is a marked-up version of the Substitute Specification which shows the changes made in the Substitute Specification by underlining added text and striking out deleted text. The Applicants submit that no new matter has been introduced into the application by the Substitute Specification.

In the drawings, Figure 4 has been amended to correct variables and a formula to correspond to the specification.

**Allowable Subject Matter**

The Examiner is thanked for indicating that claims 1-15 are allowable.

**Objections to the Specification**

The Examiner objected to the specification because the abstract mentioned several undefined acronyms. A new abstract is included with this Reply. Furthermore, the Examiner objected to the specification because some of the

Equations included variable, superscripts and subscripts of insufficient lettering height. The Substitute Specification submitted herewith corrects the lettering height of the Equations, and makes other corrections as deemed necessary.

Based on the above, the withdrawal of the objection to the specification is respectfully requested.

### **Claim Objections**

The Examiner objected to claims 1-15 because of various informalities and also indicated that some of the Equations included variables, superscripts and subscripts of insufficient lettering height. The Applicants have amended the claims to address the informalities pointed out by the Examiner.

Based on the above, the withdrawal of the objection to the claims 1-15 is respectfully requested.

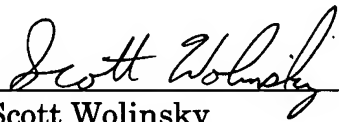
### **Conclusion**

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

**Applicant:** Shin et al.  
**Application No.:** 10/686,388

In view of the foregoing amendment and remarks, Applicants respectfully submit that the present application, including claims 1-15, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,  
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Enclosures